

REMARKS**35 USC §112 Claim Rejections.**

2. The Office Action states that "Claims 3, 13, and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention."

The Office Action stated that the "phrase "compliant to a standard" appearing in claims 3, 13, and 23 is unclear and indefinite because there is no suggestion in the claim, or in the specification what makes a loop "compliant to a standard". The Examiner will give the phrase "compliant to a standard" the broadest reasonable interpretation."

Applicant has amended Claim 2, to claim "the process of Claim 1, further comprising the steps of:

continuing to advance through the playlist for at least one of the stations if delivery of new content or schedule is disrupted;

caching the first track of the playlist into memory if a second to last content element is reached, to loop the stream of content, such that the last content element is linked to the first content element; and

playing the loop of content."

Applicant has amended Claim 12, to claim "the process of Claim 11, further comprising the steps of:

continuing to advance through the playlist for at least one of the stations if delivery of new content or schedule is disrupted;

caching the first track of the playlist into memory if a second to last content element is reached, to loop the stream of content, such that the last content element is linked to the first content element; and

playing the loop of content."

Applicant has amended Claim 22, to claim "the system of Claim 21, further comprising:

means for continuing to advance through the playlist for at least one of the stations if delivery of new content or schedule is disrupted;

means for caching the first track of the playlist into memory if a second to last content element is reached, to loop the stream of content, such that the last content element is linked to the first content element; and

means for playing the loop of content."

Support for Claims 2, 12, and 22 as amended is seen in the Application as filed, at least on page 5, lines 18-22; on page 7, lines 9-15 and 25-30; on page 17, lines 32-37; on page 19, lines 20-25; and in Figure 8.

Applicant has amended Claim 3, to particularly point out and distinctly claim "the process of Claim 2, further comprising the steps of:

checking for new items in the playlist as each of the tracks finishes streaming; and

stopping the looping if there are new items in the playlist, to resume normal streaming of the content."

Applicant has amended Claim 13, to particularly point out and distinctly claim "the process of Claim 12, further comprising the steps of:

checking for new items in the playlist as each of the tracks finishes streaming; and

stopping the looping if there are new items in the playlist, to resume normal streaming of the content."

Applicant has amended Claim 23, to particularly point out and distinctly claim "the system of Claim 22, further comprising:

means for checking for new items in the playlist as each of the tracks finishes streaming; and

means for stopping the looping if there are new items in the playlist, to resume normal streaming of the content."

Support for Claims 3, 13, and 23 as amended is seen in the Application as filed, at least on page 17, line 37 to page 18, line 2.

Applicant submits that Claims 3, 13, and 23, as amended, particularly point out and distinctly claim preferred embodiments, and are fully supported by the Application as filed.

Applicant therefore submits that Claims 3, 13, and 23, as amended, overcome the rejections under 35 U.S.C. 112, second paragraph.

35 USC §103 Claim Rejections.

4. The Office Action states that "Claims 1, 4-5, 9-11, 14-15, 19-21, 24-25, and 29-30 [are] rejected under 35 U.S.C. 103(a) as being unpatentable over Goldman (US 6067562), in view of Day et al. (US 5996015), hereafter Day."

Regarding Claims 1, 11, and 21, the Office Action states that "Goldman discloses:

periodically retrieving a play list from a database for content delivery for each station that a system serves; analyzing each of the retrieved play lists to determine content that is already locally cached, and content that needs to be retrieved; (Col. 2, lines 15-25 "The system then validates the selections and requests the loading of material not present")

fetching content that needs to be retrieved for each of the retrieved play lists; (Col. 1, lines 57-61 If a song is not available locally it can be downloaded from another server)

locally caching the fetched content; (Col. 1 lines 57-61 If a song is not available locally it can be downloaded from another server)".

The Office Action concedes that "Goldman does not specifically disclose matching bit-rates of a stream and concatenating a playlist into a stream."

However, the Office Action then states that "In analogous art, Day discloses concatenating the cached content into a stream for each of the stations, based on the retrieved play list for each of the stations; and transmitting the streams of the content to at least one distribution point for relaying to at least one terminal. (Abstract "multimedia files are seamlessly concatenated on the "fly"). It would have been obvious to one of ordinary skill in the art to combine the teaching of Day with Goldman in order to allow a broadcast station to use differing types of media more easily and also to allow a broadcast station to stream information over the Internet or other networks."

Applicant disagrees that Claim 1, 11, and 21 are unpatentable over Goldman in view of Day, and submits that the Examiner's interpretation of the cited prior art is unreasonably broad.

Hilton Davis / Festo Statement

Applicant has amended Claim 1, 11 and 21, for convenience in prosecution, and reserves the right to present the same or similar claims in a related Application. The amendments herein were not made for any reason related to patentability.

Applicant has amended Claim 1, to claim a process for producing and delivering streams of content, comprising the steps of:

periodically querying a database for a playlist for each of a plurality of stations;

receiving the playlists from the database based upon the periodic query;

analyzing each of the received playlists to determine content that is already locally cached, and content that needs to be retrieved;

fetching content that needs to be retrieved for each of the received playlists;

locally caching the fetched content;

concatenating the cached content into a stream for each of the stations, based on the received playlist for each of the stations;

for each of the stations, feeding a buffer of a plurality of buffers with the stream corresponding to the station; and

upon receiving a request for one or more of the streams, transmitting the streams of the content from the buffers to at least one distribution point for relaying to at least one client terminal.

Applicant has amended Claim 11, to claim a process for producing and delivering streams of content, comprising the steps of:

periodically querying a database for a playlist for each of a plurality of stations;

receiving the playlists from the database based upon the periodic query;

analyzing each of the received playlists to determine content that is already locally cached in a memory cache, and content that needs to be retrieved;

fetching content that needs to be retrieved for each of the received playlists;

storing the fetched content to a local disk;

copying the stored fetched content to the memory cache;

concatenating the cached content from the memory cache into a stream for each of the stations based on the received playlist for each of the stations;

for each of the stations, feeding a buffer of a plurality of buffers with the stream corresponding to the station; and

upon receiving a request for one or more of the streams, delivering the streams of content from the buffers to at least one distribution point for relaying to at least one client terminal.

Applicant has amended Claim 21, to claim a stream source content delivery system, comprising:

means for periodically querying a database for a playlist for each of a plurality of stations;

means for receiving the playlists from the database based on the periodic query;

a local disk associated with the system for storing content;

means for analyzing each of the received playlists to determine content that is already locally stored, and content that needs to be retrieved;

means for periodically fetching content that needs to be retrieved for each of the received playlists;

a memory cache for copying the stored and received content;

means for concatenating the content from the memory cache into a stream for each of the stations based on the received playlist for each of the stations;

a plurality of buffers;

for each of the stations, means for feeding a buffer of the plurality of buffers with the stream corresponding to the station;

means for receiving a request for one or more of the streams; and

means for delivering the streams of content from the buffers to at least one distribution point upon receipt of the request, for relaying from the distribution point to at least one client terminal.

Support is seen in the Application as filed, at least on page 5, lines 13-18 and 22-24; on page 7, lines 1-9 and 17-19; on page 8, lines 7-21; on page 9, lines 10-11; on page 9, line 34 to page 10, line 3; on page 11, lines 6-8; on page 11, line 29 to page 12, line 18; on page 12, line 25 to page 13, line 8; on page 13, line 16 to page 14, line 31; on page 15, lines 8-20 and 28-29; on page 19, lines 28-32; and in Figures 1, 3-7 and 9-12.

Applicant submits that Claims 1, 11, and 21, as amended and as discussed below, overcome the rejections under 35 U.S.C. §103(a) as being unpatentable over Goldman in view of Day.

Goldman describe a system and method for downloading music selections, as seen at least in the abstract, wherein:

"A digital radio broadcast station which includes a common digital database having stored therein a plurality of at least several hundred (preferably at least 1800) different selections of music to be played and broadcast by the radio station. A processor system is provided for programming the operation of the digital radio broadcast station with a sequence of music selections, which are subsequently retrieved in order from the common digital database and played over the digital radio broadcast station. The processor system preferably includes a main computer system for operating the radio station, and also a backup computer system for operating the radio station in the event of a failure of the main computer system. The processor system is preferably based upon reduced instruction set computing architecture, and preferably comprises an IBM RS/6000 system with an AIX operating system. The common digital database comprises a disk array storage, preferably a dual port RAID disk array. The digital radio broadcast station also includes a plurality of work station consoles for use by personnel responsible for operating the radio station such as disc jockeys and engineers."

Applicant submits that the digital radio broadcast station as described by Goldman is significantly different than Claims 1, 11, and 21, as amended.

Goldman describes details of station programming of music to be played, validation of selections, and loading of material, as seen at least in Col. 2, lines 15-25, wherein:

"In efficiency, the system of the present invention is very easy to operate. The person in charge of programming selects the music to be played and places the music in a desired program order. A prior day's program can be used as a guide in planning future programming. The system then validates the selections and requests the loading of any material not present either by tapes/CD's or by downloading if available. Work station

consoles are available throughout the station for use by engineers, DJ's and others responsible for station operation."

Applicant submits that in Goldman, a person in charge of programming selects the music to be played, and places the music in the desired order. While Goldman describes a "common digital database having stored therein a plurality of at least several hundred (preferably at least 1800) different selections of music", there is no disclosure or suggestion, express or implied, in Goldman, of "periodically querying a database for a playlist for each of a plurality of stations", and "receiving the playlists from the database based upon the periodic query".

As noted above, the Office Action concedes that "Goldman does not specifically disclose matching bit-rates of a stream and concatenating a playlist into a stream."

Furthermore, there is no disclosure or suggestion, express or implied, in Goldman, of a process that comprises steps of, *inter alia*:

"for each of the stations, feeding a buffer of a plurality of buffers with the stream corresponding to the station"; and/or

"upon receiving a request for one or more of the streams, transmitting the streams of the content from the buffers to at least one distribution point for relaying to at least one client terminal."

In regard to Claim 1, as amended, Applicant therefore submits that, while Goldman describes a processor system for programming the operation of a "digital radio broadcast station with a sequence of music selections, which are subsequently retrieved in order from the common digital database and played over the digital radio broadcast station", there is no disclosure or suggestion, express or implied, of "a process for producing and delivering streams of content, comprising the steps of:

periodically querying a database for a playlist for each of a plurality of stations;

receiving the playlists from the database based upon the periodic query;
analyzing each of the received playlists to determine content that is already locally cached, and content that needs to be retrieved;
fetching content that needs to be retrieved for each of the received playlists;
locally caching the fetched content;
concatenating the cached content into a stream for each of the stations, based on the received playlist for each of the stations;
for each of the stations, feeding a buffer of a plurality of buffers with the stream corresponding to the station; and
upon receiving a request for one or more of the streams, transmitting the streams of the content from the buffers to at least one distribution point for relaying to at least one client terminal.”

In regard to Claim 11, as amended, Applicant also submits that, while Goldman describes a processor system for programming the operation of a “digital radio broadcast station with a sequence of music selections, which are subsequently retrieved in order from the common digital database and played over the digital radio broadcast station”, there is no disclosure or suggestion, express or implied, of “a process for producing and delivering streams of content, comprising the steps of:

periodically querying a database for a playlist for each of a plurality of stations;
receiving the playlists from the database based upon the periodic query;
analyzing each of the received playlists to determine content that is already locally cached in a memory cache, and content that needs to be retrieved;
fetching content that needs to be retrieved for each of the received playlists;
storing the fetched content to a local disk;
copying the stored fetched content to the memory cache;

concatenating the cached content from the memory cache into a stream for each of the stations based on the received playlist for each of the stations;

for each of the stations, feeding a buffer of a plurality of buffers with the stream corresponding to the station; and

upon receiving a request for one or more of the streams, delivering the streams of content from the buffers to at least one distribution point for relaying to at least one client terminal.”

Furthermore, In regard to Claim 21, as amended, Applicant submits that, while Goldman describes a processor system for programming the operation of a “digital radio broadcast station with a sequence of music selections, which are subsequently retrieved in order from the common digital database and played over the digital radio broadcast station”, there is no disclosure or suggestion, express or implied, of “a stream source content delivery system, comprising:

means for periodically querying a database for a playlist for each of a plurality of stations;

means for receiving the playlists from the database based on the periodic query;

a local disk associated with the system for storing content;

means for analyzing each of the received playlists to determine content that is already locally stored, and content that needs to be retrieved;

means for periodically fetching content that needs to be retrieved for each of the received playlists;

a memory cache for copying the stored and received content;

means for concatenating the content from the memory cache into a stream for each of the stations based on the received playlist for each of the stations;

a plurality of buffers;

for each of the stations, means for feeding a buffer of the plurality of buffers with the stream corresponding to the station;

means for receiving a request for one or more of the streams; and

means for delivering the streams of content from the buffers to at least one distribution point upon receipt of the request, for relaying from the distribution point to at least one client terminal."

Day describes a method of "delivering seamless and continuous presentation of multimedia data files to a target device by assembling and concatenating multimedia segments in memory" as seen at least in the Abstract, wherein:

"A method and implementing computer system is provided including a multimedia server connected in a network configuration with client computer systems. The multimedia server includes various functional units which are selectively operable for delivering and effecting the presentation of multimedia files to the client such that a plurality of multimedia files are seamlessly concatenated on the fly to enable a continuous and uninterrupted presentation to the client. In one example, client selected video files are seamlessly joined together at the server just prior to file delivery from the server. The methodology includes the analog to digital encoding of multimedia segments followed by a commonization processing to ensure that all of the multimedia segments have common operating characteristics. A seamless sequential playlist or dynamically created playlist is assembled from the selected and commonized segments and the resources needed to deliver and play the playlist are reserved in advance to assure resource availability for continuous transmission and execution of the playlist. At a predetermined point prior to an end point of each selected multimedia segment, the next selected segment is initialized and aligned in memory in preparation for a seamless switch to the next segment at the end of a previous segment, thereby providing a seamless flow of data and a continuous presentation of a plurality of selected multimedia files to a client system."

Applicant submits that, while Day describe concatenation of a plurality of multimedia files, the files are selected by the client, and are then delivered to the

client. While a playlist is described as being a seamless sequential playlist or dynamically created playlist, Day is silent in regard to querying a database for playlists for a plurality of stations.

Furthermore, there is no disclosure or suggestion, express or implied, in Day, of a process that comprises steps of, *inter alia*;

“for each of the stations, feeding a buffer of a plurality of buffers with the stream corresponding to the station”; and/or

“upon receiving a request for one or more of the streams, transmitting the streams of the content from the buffers to at least one distribution point for relaying to at least one client terminal.”

Applicant therefore respectfully submits that, even in combination, Goldman and Day fail to meet Claims 1, 11, and 21, as amended. As well, it would take significant modification and undue experimentation to meet Claims 1, 11, and 21, as amended, based on any of Goldman and/or Day.

Therefore, the *prima facie* obviousness case is incomplete because Goldman and/or Day fail to teach or suggest all the claim limitations (MPEP 2142, 2143.03). To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the Examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references (Ex Parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985), MPEP 706.02(j)). As well, the Examiner should “determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit (*KSR Int'l Co., v. Teleflex, Inc.*, No 04-1350 (U.S. Apr. 30, 2007)).

Applicant therefore submits that independent Claim 1, Claim 11, and Claim 21, as amended, overcome the rejection under 35 U.S.C. §103(a) as being unpatentable over Goldman in view of Day.

As claims 2-10 depend from amended independent Claim 1, as claims 12-20 depend from amended independent Claim 11, and as dependent claims 22-30 depend from amended independent Claim 21, and inherently contain all the limitations of the claims they depend from, they are seen to be patentable as well.

5. The Office Action states that "Claims 2-3, 12-13, and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldman and Day as applied to claims 1, 11, and 21 above, in further in view of Pezzillo at al. (US 6434621), hereafter Pezzillo."

In regard to Claims 2, 12, and 22, as applied to Claims 1, 11, and 21, the Office Action states that "Goldman-Day disclose the invention as described in the claims above."

The Office Action concedes that "Goldman-Day do not specifically disclose a loop being created."

The Office Action then states that "in analogous art, Pezzillo teaches:

looping a stream of media content (at least Col. 5 lines 56-57 states that a single group of files (i.e. the stream) may be played in a loop). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Goldman and Day with Pezzillo in order to allow compliance with DMCA statutory requirements, as well as to eliminate the possibility of dead air time."

In regard to Claims 3, 13, and 23, as applied to Claims 1, 11, and 21, the Office Action states that "Goldman-Day disclose the invention as described in the claims above."

The Office Action concedes that "Goldman-Day do not disclose a loop compliant to a standard."

The Office Action then states that "in analogous art, Pezzillo teaches:

The loop is compliant to a standard. (the Examiner notes that is inherent that the loop must be compliant to -some- standard, at least the standard formatting of content that the client requires to be able to even play the file. However, at least Col. 17-18 teach a system to ensure DCMA compliance."

Hilton Davis / Festo Statement

As discussed above, Applicant has amended Claims 1, 11, and 21, for convenience in prosecution, and reserves the right to present the same or similar claims in a related Application. The amendments herein were not made for any reason related to patentability.

As discussed above, Applicant has amended Claim 1, to claim a process for producing and delivering streams of content, comprising the steps of:

periodically querying a database for a playlist for each of a plurality of stations;

receiving the playlists from the database based upon the periodic query;

analyzing each of the received playlists to determine content that is already locally cached, and content that needs to be retrieved;

fetching content that needs to be retrieved for each of the received playlists;

locally caching the fetched content;

concatenating the cached content into a stream for each of the stations, based on the received playlist for each of the stations;

for each of the stations, feeding a buffer of a plurality of buffers with the stream corresponding to the station; and

upon receiving a request for one or more of the streams, transmitting the streams of the content from the buffers to at least one distribution point for relaying to at least one client terminal.

As also discussed above, Applicant has amended Claim 11, to claim a process for producing and delivering streams of content, comprising the steps of:

periodically querying a database for a playlist for each of a plurality of stations;

receiving the playlists from the database based upon the periodic query;

analyzing each of the received playlists to determine content that is already locally cached in a memory cache, and content that needs to be retrieved;

fetching content that needs to be retrieved for each of the received playlists;

storing the fetched content to a local disk;

copying the stored fetched content to the memory cache;

concatenating the cached content from the memory cache into a stream for each of the stations based on the received playlist for each of the stations;

for each of the stations, feeding a buffer of a plurality of buffers with the stream corresponding to the station; and

upon receiving a request for one or more of the streams, delivering the streams of content from the buffers to at least one distribution point for relaying to at least one client terminal.

As further discussed above, Applicant has amended Claim 21, to claim a stream source content delivery system, comprising:

means for periodically querying a database for a playlist for each of a plurality of stations;

means for receiving the playlists from the database based on the periodic query;

a local disk associated with the system for storing content;

means for analyzing each of the received playlists to determine content that is already locally stored, and content that needs to be retrieved;

means for periodically fetching content that needs to be retrieved for each of the received playlists;

a memory cache for copying the stored and received content;

means for concatenating the content from the memory cache into a stream for each of the stations based on the received playlist for each of the stations;

a plurality of buffers;

for each of the stations, means for feeding a buffer of the plurality of buffers with the stream corresponding to the station;

means for receiving a request for one or more of the streams; and means for delivering the streams of content from the buffers to at least one distribution point upon receipt of the request, for relaying from the distribution point to at least one client terminal.

Support is seen in the Application as filed, at least on page 5, lines 13-18 and 22-24; on page 7, lines 1-9 and 17-19; on page 8, lines 7-21; on page 9, lines 10-11; on page 9, line 34 to page 10, line 3; on page 11, lines 6-8; on page 11, line 29 to page 12, line 18; on page 12, line 25 to page 13, line 8; on page 13, line 16 to page 14, line 31; on page 15, lines 8-20 and 28-29; on page 19, lines 28-32; and in Figures 1, 3-7 and 9-12.

In regard to Claims 1, 11, and 21, Applicant submits that Pezzillo does not provide a remedy for the deficiencies of Goldman and/or Day.

Pezzillo describe an apparatus and method of using the same for Internet and intranet broadcast channel creation and management, as seen at least in the Abstract, wherein:

"A system for enabling Internet or intranet broadcasting that offers audio automation and webcast automation is disclosed. Multiple webcast

channels, or stations, can be created and managed, including Internet Radio, Internet Television, and Scheduled Website Publishing. The channels created can use a variety of media sources, including popular Internet streaming formats. The channels are run using a program schedule created by the webcaster, or by using the system to automatically determine a program schedule utilizing criteria provided by the webcaster or listener. The listener logs onto the Website using a Web browser having player software. Time barriers can be inserted in the program schedule to force a program to run at a specific time. A default script runs a default program in the event an off-air condition occurs. Statutory performance license compliance and reporting is automatically provided for along with automatic advertising insertion. Monitoring and alerting functionality is also provided.”

Pezzillo describe an auto-schedule to run a continuous loop of a batch file, as seen at least in col. 3, lines 30-31, wherein:

“A further aspect of the invention is to provide an auto-schedule to run a batch file to be aired in a continuous loop.”

Pezzillo describe further details of an auto-schedule feature that allows a single batch file to be selected and aired in a continuous loop, as seen at least in col. 3, lines 30-31, wherein:

“An auto-schedule feature allows a single batch file to be selected and aired in a continuous loop. Using auto-schedule in conjunction with a skeleton file enables the system to dynamically select content from the contents Database.”

Pezzillo describe additional details of an auto-schedule feature that allows a single batch file to be selected and aired in a continuous loop, as seen at least in Fig. 4, and in col. 10, line 66 to col. 11, line 30.

Applicant submits that, while Pezzillo describe that a “default script runs a default program in the event an off-air condition occurs”, none of Goldman, Day, and Pezzillo periodically query a database for a playlist for each of a plurality of stations; and receive the playlists from the database based upon the periodic query.

Furthermore, there is no disclosure or suggestion, express or implied, in Pezzillo, of a process that comprises steps of, *inter alia*;

“for each of the stations, feeding a buffer of a plurality of buffers with the stream corresponding to the station”; and/or

“upon receiving a request for one or more of the streams, transmitting the streams of the content from the buffers to at least one distribution point for relaying to at least one client terminal.”

Therefore, none of Goldman, Day, and Pezzillo, for each of a plurality of stations, feed a buffer of a plurality of buffers with a stream corresponding to the station; and upon receiving a request for one or more of the streams, transmit the streams of the content from the buffers to at least one distribution point for relaying to at least one client terminal.

In regard to Claim 1, as amended, Applicant submits that there is no disclosure or suggestion, express or implied, in any of Goldman, Day or Pezzillo, of “a process for producing and delivering streams of content, comprising the steps of:

periodically querying a database for a playlist for each of a plurality of stations;

receiving the playlists from the database based upon the periodic query;

analyzing each of the received playlists to determine content that is already locally cached, and content that needs to be retrieved;

fetching content that needs to be retrieved for each of the received playlists;

locally caching the fetched content;

concatenating the cached content into a stream for each of the stations, based on the received playlist for each of the stations;

for each of the stations, feeding a buffer of a plurality of buffers with the stream corresponding to the station; and

upon receiving a request for one or more of the streams, transmitting the streams of the content from the buffers to at least one distribution point for relaying to at least one client terminal.”

In regard to Claim 11, as amended, Applicant submits that there is no disclosure or suggestion, express or implied, in any of Goldman, Day or Pezzillo, of “a process for producing and delivering streams of content, comprising the steps of:

periodically querying a database for a playlist for each of a plurality of stations;

receiving the playlists from the database based upon the periodic query;

analyzing each of the received playlists to determine content that is already locally cached in a memory cache, and content that needs to be retrieved;

fetching content that needs to be retrieved for each of the received playlists;

storing the fetched content to a local disk;

copying the stored fetched content to the memory cache;

concatenating the cached content from the memory cache into a stream for each of the stations based on the received playlist for each of the stations;

for each of the stations, feeding a buffer of a plurality of buffers with the stream corresponding to the station; and

upon receiving a request for one or more of the streams, delivering the streams of content from the buffers to at least one distribution point for relaying to at least one client terminal.”

In regard to Claim 21, as amended, Applicant submits that there is no disclosure or suggestion, express or implied, in any of Goldman, Day or Pezzillo, of “a stream source content delivery system, comprising:

means for periodically querying a database for a playlist for each of a plurality of stations;

means for receiving the playlists from the database based on the periodic query;

a local disk associated with the system for storing content;

means for analyzing each of the received playlists to determine content that is already locally stored, and content that needs to be retrieved;

means for periodically fetching content that needs to be retrieved for each of the received playlists;

a memory cache for copying the stored and received content;

means for concatenating the content from the memory cache into a stream for each of the stations based on the received playlist for each of the stations;

a plurality of buffers;

for each of the stations, means for feeding a buffer of the plurality of buffers with the stream corresponding to the station;

means for receiving a request for one or more of the streams; and
means for delivering the streams of content from the buffers to at least one distribution point upon receipt of the request, for relaying from the distribution point to at least one client terminal."

Applicant therefore respectfully submits that, even in combination, Goldman, Day or Pezzillo fail to meet Claims 1, 11, and 21, as amended. As well, it would take significant modification and undue experimentation to meet Claims 1, 11, and 21, as amended, based on any of Goldman, Day, and/or Pezzillo.

Therefore, the *prima facie* obviousness case is incomplete because Goldman, Day and/or Pezzillo fail to teach or suggest all the claim limitations (MPEP 2142, 2143.03). To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the Examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have

been obvious in light of the teachings of the references (*Ex Parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985), MPEP 706.02(j)). As well, the Examiner should “determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit (*KSR Int'l Co., v. Teleflex, Inc.*, No 04-1350 (U.S. Apr. 30, 2007)).

Applicant therefore submits that independent Claim 1, Claim 11, and Claim 21, as amended, overcome the rejection under 35 U.S.C. §103(a) as being unpatentable over Goldman and Day in view of Pezzillo.

As Claims 2 and 3 depend from amended independent Claim 1, as Claims 12 and 13 depend from amended independent Claim 11, and as dependent Claims 22 and 23 depend from amended independent Claim 21, and inherently contain all the limitations of the claims they depend from, they are seen to be patentable as well.

As noted above, Applicant has amended Claim 2, to claim “the process of Claim 1, further comprising the steps of:

continuing to advance through the playlist for at least one of the stations if delivery of new content or schedule is disrupted;

caching the first track of the playlist into memory if a second to last content element is reached, to loop the stream of content, such that the last content element is linked to the first content element; and

playing the loop of content.”

As also noted above, Applicant has amended Claim 12, to claim “the process of Claim 11, further comprising the steps of:

continuing to advance through the playlist for at least one of the stations if delivery of new content or schedule is disrupted;

caching the first track of the playlist into memory if a second to last content element is reached, to loop the stream of content, such that the last content element is linked to the first content element; and
playing the loop of content.”

Furthermore, as noted above, Applicant has amended Claim 22, to claim “the system of Claim 21, further comprising:

means for continuing to advance through the playlist for at least one of the stations if delivery of new content or schedule is disrupted;

means for caching the first track of the playlist into memory if a second to last content element is reached, to loop the stream of content, such that the last content element is linked to the first content element; and

means for playing the loop of content.”

Support for Claims 2, 12, and 22 as amended is seen in the Application as filed, at least on page 5, lines 18-22; on page 7, lines 9-15 and 25-30; on page 17, lines 32-37; on page 19, lines 20-25; and in Figure 8.

While Pezzillo describe that a “default script runs a default program in the event an off-air condition occurs”, Pezzillo does not disclose “continuing to advance through the playlist for at least one of the stations if delivery of new content or schedule is disrupted; caching the first track of the playlist into memory if a second to last content element is reached, to loop the stream of content, such that the last content is linked to the first content element; and playing the loop of content.”

Applicant has amended Claim 3, to claim “the process of Claim 2, further comprising the steps of:

checking for new items in the playlist as each of the tracks finishes streaming; and

stopping the looping if there are new items in the playlist, to resume normal streaming of the content.”

Applicant has amended Claim 13, to claim "the process of Claim 12, further comprising the steps of:

checking for new items in the playlist as each of the tracks finishes streaming; and

stopping the looping if there are new items in the playlist, to resume normal streaming of the content."

Applicant has amended Claim 23, to claim "the system of Claim 22, further comprising:

means for checking for new items in the playlist as each of the tracks finishes streaming; and

means for stopping the looping if there are new items in the playlist, to resume normal streaming of the content."

Support for Claims 3, 13, and 23 as amended is seen in the Application as filed, at least on page 17, line 37 to page 18, line 2.

In regard to Claim 3, while Pezzillo describe that a "default script runs a default program in the event an off-air condition occurs", Pezzillo does not disclose a process as claimed in Claim 2 as amended, further comprising "the steps of:

checking for new items in the playlist as each of the tracks finishes streaming; and

stopping the looping if there are new items in the playlist, to resume normal streaming of the content."

In regard to Claim 13, while Pezzillo describe that a "default script runs a default program in the event an off-air condition occurs", Pezzillo does not disclose a process as claimed in Claim 12 as amended, further comprising "the steps of:

checking for new items in the playlist as each of the tracks finishes streaming; and

stopping the looping if there are new items in the playlist, to resume normal streaming of the content."

In regard to Claim 23, while Pezzillo describe that a "default script runs a default program in the event an off-air condition occurs", Pezzillo does not disclose a system as claimed in Claim 22 as amended, further comprising:

"means for checking for new items in the playlist as each of the tracks finishes streaming; and

means for stopping the looping if there are new items in the playlist, to resume normal streaming of the content."

As well, in regard to Claims 2-3, 12-13, and 22-23, Applicant submits that Goldman and Pezzillo take different paths and reach different solutions to a similar problem, e.g. reliability of content delivery. Since they teach away from each other, it would not be logical to combine them.

For example, Goldman describes a backup computer system, wherein all music has a second standby copy available, as seen at least in Col. 2, lines 26-30, wherein:

"In reliability, a backup computer system automatically takes over for the primary computer system in case of failure. All music in the database can have a second standby copy available and backup power to take over in an emergency, to operate the system in a fail-safe mode.

Applicant therefore submits that Goldman clearly takes a different path to provide reliability, comprising "a second standby copy available and backup power to take over in an emergency". One practicing Goldman would not logically be motivated to combine a system as described by Goldman with a system with content looping. As well, it would take further modification, not taught in the cited prior art to combine a system or process, as described by Goldman, with an apparatus and method as described by Pezzillo.

Therefore, the *prima facie* obviousness case is incomplete because Goldman, Day and/or Pezzillo fail to teach or suggest all the claim limitations (MPEP 2142, 2143.03). To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the Examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references (Ex Parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985), MPEP 706.02(j)). As well, the Examiner should “determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit (*KSR Int'l Co., v. Teleflex, Inc.*, No 04-1350 (U.S. Apr. 30, 2007)).

Applicant therefore submits that dependent Claims 2-3, 12-13, and 22-23, as amended, overcome the rejection under 35 U.S.C. §103(a) as being unpatentable over Goldman and Day in view of Pezzillo.

6. The Office Action states that “Claims 6-7, 16-17, and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldman and Day as applied to claims 1, 11, and 21 above, in further in view of Addington (US 2003/0028893).”

The Office Action states that “Goldman and Day teach all the limitations of claims 6-7, 16-17, and 26-27 except for incorporating metadata indicating content into the stream”.

The Office Action then states that “the general concept of incorporating metadata indicating content duration into a stream is well known in the art as taught by Addington. ([0030] discloses including metadata indication a duration of the stream into the stream.)”

Hilton Davis / Festo Statement

As discussed above and below, Applicant has amended Claims 1, 11, and 21, for convenience in prosecution, and reserves the right to present the same or similar claims in a related Application. The amendments herein were not made for any reason related to patentability.

As discussed above, Applicant has amended Claim 1, to claim a process for producing and delivering streams of content, comprising the steps of:

periodically querying a database for a playlist for each of a plurality of stations;

receiving the playlists from the database based upon the periodic query;

analyzing each of the received playlists to determine content that is already locally cached, and content that needs to be retrieved;

fetching content that needs to be retrieved for each of the received playlists;

locally caching the fetched content;

concatenating the cached content into a stream for each of the stations, based on the received playlist for each of the stations;

for each of the stations, feeding a buffer of a plurality of buffers with the stream corresponding to the station; and

upon receiving a request for one or more of the streams, transmitting the streams of the content from the buffers to at least one distribution point for relaying to at least one client terminal.

As also discussed above, Applicant has amended Claim 11, to claim a process for producing and delivering streams of content, comprising the steps of:

periodically querying a database for a playlist for each of a plurality of stations;

receiving the playlists from the database based upon the periodic query;

analyzing each of the received playlists to determine content that is already locally cached in a memory cache, and content that needs to be retrieved;

fetching content that needs to be retrieved for each of the received playlists;

storing the fetched content to a local disk;

copying the stored fetched content to the memory cache;

concatenating the cached content from the memory cache into a stream for each of the stations based on the received playlist for each of the stations;

for each of the stations, feeding a buffer of a plurality of buffers with the stream corresponding to the station; and

upon receiving a request for one or more of the streams, delivering the streams of content from the buffers to at least one distribution point for relaying to at least one client terminal.

As further discussed above, Applicant has amended Claim 21, to claim a stream source content delivery system, comprising:

means for periodically querying a database for a playlist for each of a plurality of stations;

means for receiving the playlists from the database based on the periodic query;

a local disk associated with the system for storing content;

means for analyzing each of the received playlists to determine content that is already locally stored, and content that needs to be retrieved;

means for periodically fetching content that needs to be retrieved for each of the received playlists;

a memory cache for copying the stored and received content;

means for concatenating the content from the memory cache into a stream for each of the stations based on the received playlist for each of the stations;

a plurality of buffers;

for each of the stations, means for feeding a buffer of the plurality of buffers with the stream corresponding to the station;

means for receiving a request for one or more of the streams; and

means for delivering the streams of content from the buffers to at least one distribution point upon receipt of the request, for relaying from the distribution point to at least one client terminal.

Applicant has also amended Claims 6, 16, and 26, to correct minor errors and to provide proper antecedent terminology.

Support is seen in the Application as filed, at least on page 5, lines 13-18 and 22-24; on page 7, lines 1-9 and 17-19; on page 8, lines 7-21; on page 9, lines 10-11; on page 9, line 34 to page 10, line 3; on page 11, lines 6-8; on page 11, line 29 to page 12, line 18; on page 12, line 25 to page 13, line 8; on page 13, line 16 to page 14, line 31; on page 15, lines 8-20 and 28-29; on page 19, lines 28-32; and in Figures 1, 3-7 and 9-12.

In regard to Claims 1, 11, and 21, Applicant submits that Addington does not provide a remedy for the deficiencies of Goldman and/or Day.

Addington describes a system and method for distributing network-based personal video, as seen at least in the Abstract, wherein:

“A personal video service manager can store one or more personal video assets on a server. A personal video asset can comprise a recording of a broadcast stream of a broadcast asset or an asset that has been pre-authored in a personal video asset format. Upon receiving a request from a subscriber to receive the personal video asset, the personal video service manager can facilitate a connection between the server and the subscriber for distributing the personal video asset from the server to the subscriber.”

Applicant submits that, while Goldman describes a “common digital database having stored therein a plurality of at least several hundred (preferably at least 1800) different selections of music”, there is no disclosure or suggestion, express

or implied, in any of Goldman, Day and Addington, of "periodically querying a database for a playlist for each of a plurality of stations", and "receiving the playlists from the database based upon the periodic query".

Furthermore, there is no disclosure or suggestion, express or implied, in any of Goldman, Day and Addington, of a process or system that comprises, *inter alia*;

"for each of the stations, feeding a buffer of a plurality of buffers with the stream corresponding to the station"; and/or

"upon receiving a request for one or more of the streams, transmitting the streams of the content from the buffers to at least one distribution point for relaying to at least one client terminal."

In regard to Claim 1, as amended, Applicant submits that there is no disclosure or suggestion, express or implied, in any of Goldman, Day or Addington, of "a process for producing and delivering streams of content, comprising the steps of:

periodically querying a database for a playlist for each of a plurality of stations;

receiving the playlists from the database based upon the periodic query;

analyzing each of the received playlists to determine content that is already locally cached, and content that needs to be retrieved;

fetching content that needs to be retrieved for each of the received playlists;

locally caching the fetched content;

concatenating the cached content into a stream for each of the stations, based on the received playlist for each of the stations;

for each of the stations, feeding a buffer of a plurality of buffers with the stream corresponding to the station; and

upon receiving a request for one or more of the streams, transmitting the streams of the content from the buffers to at least one distribution point for relaying to at least one client terminal."

In regard to Claim 11, as amended, Applicant submits that there is no disclosure or suggestion, express or implied, in any of Goldman, Day or Addington, of "a process for producing and delivering streams of content, comprising the steps of:

periodically querying a database for a playlist for each of a plurality of stations;

receiving the playlists from the database based upon the periodic query;

analyzing each of the received playlists to determine content that is already locally cached in a memory cache, and content that needs to be retrieved;

fetching content that needs to be retrieved for each of the received playlists;

storing the fetched content to a local disk;

copying the stored fetched content to the memory cache;

concatenating the cached content from the memory cache into a stream for each of the stations based on the received playlist for each of the stations;

for each of the stations, feeding a buffer of a plurality of buffers with the stream corresponding to the station; and

upon receiving a request for one or more of the streams, delivering the streams of content from the buffers to at least one distribution point for relaying to at least one client terminal."

In regard to Claim 21, as amended, Applicant submits that there is no disclosure or suggestion, express or implied, in any of Goldman, Day, or Addington, of "a stream source content delivery system, comprising:

means for periodically querying a database for a playlist for each of a plurality of stations;

means for receiving the playlists from the database based on the periodic query;

a local disk associated with the system for storing content;

means for analyzing each of the received playlists to determine content that is already locally stored, and content that needs to be retrieved;

means for periodically fetching content that needs to be retrieved for each of the received playlists;

a memory cache for copying the stored and received content;

means for concatenating the content from the memory cache into a stream for each of the stations based on the received playlist for each of the stations;

a plurality of buffers;

for each of the stations, means for feeding a buffer of the plurality of buffers with the stream corresponding to the station;

means for receiving a request for one or more of the streams; and means for delivering the streams of content from the buffers to at least one distribution point upon receipt of the request, for relaying from the distribution point to at least one client terminal.”

Applicant respectfully submits that, even in combination, Goldman, Day, and Addington fail to meet Claims 1, 11, and 21, as amended. As well, it would take significant modification and undue experimentation to meet Claims 1, 11, and 21, as amended, based on any of Goldman, Day and/or Addington.

Therefore, the *prima facie* obviousness case is incomplete because Goldman, Day, and/or Addington fail to teach or suggest all the claim limitations (MPEP 2142, 2143.03). To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the Examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references (Ex Parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985), MPEP 706.02(j)). As well, the Examiner should “determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit (*KSR Int'l Co., v. Teleflex, Inc.*, No 04-1350 (U.S. Apr. 30, 2007)).

Applicant therefore submits that independent Claim 1, Claim 11, and Claim 21, as amended, overcomes the rejection under 35 U.S.C. §103(a) as being unpatentable over Goldman and Day in view of Addington.

As Claims 6-7 depend from amended independent Claim 1, as Claims 16-17 depend from amended independent Claim 11, and as dependent Claims 26-27 depend from amended independent Claim 21, and inherently contain all the limitations of the Claims they depend from, they are seen to be patentable as well.

7. The Office Action states that "Claims 6, 8, 16, 18, 26, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldman and Day as applied to claims 1, 11, and 21 above, in further in view of Costello et al. (US 6609097), hereafter Costello."

The Office Action states that Goldman and Day teach all the limitations of Claims 6, 8, 16, 18, 26, and 28 except for incorporating metadata indicating time remaining into the stream."

Hilton Davis / Festo Statement

As discussed above and below, Applicant has amended Claims 1, 11, and 21, for convenience in prosecution, and reserves the right to present the same or similar claims in a related Application. The amendments herein were not made for any reason related to patentability.

As noted above, Applicant has also amended Claims 6, 16, and 26, to correct minor errors and to provide proper antecedent terminology.

Costello describe a broadcast program capture and playback enhancement signal structure, receiver, and method, as seen at least in the Abstract, wherein:

"In a local storage and playback broadcast system, multiple copies of one or more processing parameters used in individual receivers for the local storage and playback are broadcast. In some embodiments each processing parameter is associated with each packet in the program so that a copy of each parameter is broadcast with each packet. In some embodiments the program is divided into segments, each segment having a header, and a copy of the parameter is broadcast in each segment header."

Applicant submits that, while Goldman describes a "common digital database having stored therein a plurality of at least several hundred (preferably at least 1800) different selections of music", there is no disclosure or suggestion, express or implied, in any of Goldman, Day and Costello, of "periodically querying a database for a playlist for each of a plurality of stations", and "receiving the playlists from the database based upon the periodic query".

Furthermore, there is no disclosure or suggestion, express or implied, in any of Goldman, Day and Costello, of a process or system that comprises, *inter alia*:

"for each of the stations, feeding a buffer of a plurality of buffers with the stream corresponding to the station"; and/or

"upon receiving a request for one or more of the streams, transmitting the streams of the content from the buffers to at least one distribution point for relaying to at least one client terminal."

In regard to Claim 1, as amended, Applicant submits that there is no disclosure or suggestion, express or implied, in any of Goldman, Day, and/or Costello, of "a process for producing and delivering streams of content, comprising the steps of:

periodically querying a database for a playlist for each of a plurality of stations;

receiving the playlists from the database based upon the periodic query;

analyzing each of the received playlists to determine content that is already locally cached, and content that needs to be retrieved;

fetching content that needs to be retrieved for each of the received playlists;

locally caching the fetched content;

concatenating the cached content into a stream for each of the stations, based on the received playlist for each of the stations;

for each of the stations, feeding a buffer of a plurality of buffers with the stream corresponding to the station; and

upon receiving a request for one or more of the streams, transmitting the streams of the content from the buffers to at least one distribution point for relaying to at least one client terminal.”

In regard to Claim 11, as amended, Applicant submits that there is no disclosure or suggestion, express or implied, in any of Goldman, Day, and/or Costello, of “a process for producing and delivering streams of content, comprising the steps of:

periodically querying a database for a playlist for each of a plurality of stations;

receiving the playlists from the database based upon the periodic query;

analyzing each of the received playlists to determine content that is already locally cached in a memory cache, and content that needs to be retrieved;

fetching content that needs to be retrieved for each of the received playlists;

storing the fetched content to a local disk;

copying the stored fetched content to the memory cache;

concatenating the cached content from the memory cache into a stream for each of the stations based on the received playlist for each of the stations;

for each of the stations, feeding a buffer of a plurality of buffers with the stream corresponding to the station; and

upon receiving a request for one or more of the streams, delivering the streams of content from the buffers to at least one distribution point for relaying to at least one client terminal.”

In regard to Claim 21, as amended, Applicant submits that there is no disclosure or suggestion, express or implied, in any of Goldman, Day, and/or Costello, of "a stream source content delivery system, comprising:

means for periodically querying a database for a playlist for each of a plurality of stations;

means for receiving the playlists from the database based on the periodic query;

a local disk associated with the system for storing content;

means for analyzing each of the received playlists to determine content that is already locally stored, and content that needs to be retrieved;

means for periodically fetching content that needs to be retrieved for each of the received playlists;

a memory cache for copying the stored and received content;

means for concatenating the content from the memory cache into a stream for each of the stations based on the received playlist for each of the stations;

a plurality of buffers;

for each of the stations, means for feeding a buffer of the plurality of buffers with the stream corresponding to the station;

means for receiving a request for one or more of the streams; and
means for delivering the streams of content from the buffers to at least one distribution point upon receipt of the request, for relaying from the distribution point to at least one client terminal."

Applicant therefore respectfully submits that, even in combination, Goldman, Day, and/or Costello fail to meet Claims 1, 11, and 21, as amended. As well, it would take significant modification and undue experimentation to meet Claims 1, 11, and 21, as amended, based on any of Goldman, Day, and/or Costello.

Therefore, the *prima facie* obviousness case is incomplete because Goldman, Day, and/or Costello fail to teach or suggest all the claim limitations (MPEP 2142, 2143.03). To support the conclusion that the claimed invention is directed

to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the Examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references (Ex Parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985), MPEP 706.02(j)). As well, the Examiner should “determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit (*KSR Int'l Co., v. Teleflex, Inc.*, No 04-1350 (U.S. Apr. 30, 2007)).

Applicant therefore submits that independent Claim 1, Claim 11, and Claim 21, as amended, overcomes the rejection under 35 U.S.C. §103(a) as being unpatentable over Goldman and Day in view of Costello.

As claims 6 and 8 depend from amended independent Claim 1, as Claims 16 and 18 depend from amended independent Claim 11, and as dependent Claims 26 and 28 depend from amended independent Claim 21, and inherently contain all the limitations of the Claims they depend from, they are seen to be patentable as well.

Other Amendments.

Applicant has also amended Claims 10, 20, and 30, to provide proper antecedent terminology.

CONCLUSION

Applicant submits that the claims in the present application are directed to statutory subject matter. Applicant submits that this amendment does not introduce new matter into the Application. Based on the foregoing, Applicant considers the invention to be in condition for allowance. Applicant earnestly solicits the Examiner's withdrawal of the rejection set forth in the prior Office Action, such that a Notice of Allowance is forwarded to Applicant, and the present application is therefore allowed to issue as a United States Patent.

Respectfully Submitted,



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